

## Title (en)

MINIATURE CIRCUITRY AND INDUCTIVE COMPONENTS AND METHODS FOR MANUFACTURING SAME

## Title (de)

MINIATURSCHALTKREISE UND INDUKTIVE KOMPONENTEN UND HERSTELLUNGSVERFAHREN DAFÜR

## Title (fr)

CIRCUIT MINIATURE ET COMPOSANTS D'INDUCTEURS, ET PROCÉDÉS DE FABRICATION ASSOCIÉS

## Publication

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## Application

**EP 05853280 A 20051207**

## Priority

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## Abstract (en)

[origin: WO2006063081A2] Miniature circuitry and inductor components in which multiple levels of printed circuitry are formed on each side of a support panel, typically a printed circuit board or rigid flex. Electrical connection between the plural levels of circuitry and multiple windings around magnetic members are provided by plural plated through hole conductors. Small through hole openings accommodate a plurality of the plated through hole conductors since each is insulated from the others by a very thin layer of vacuum deposited organic layer such as parylene having a high dielectric strength. Adhesion of this plated copper to the organic layer is provided by first applying an adhesive promotor to the surface of the organic layer followed by the vacuum deposition of the organic layer.

## IPC 8 full level

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## Citation (search report)

- [X] US 5300911 A 19940405 - WALTERS MICHAEL M [US]
- [DX] US 2004135662 A1 20040715 - HARDING PHILIP A [US]
- [A] US 2003011458 A1 20030116 - NUYTKENS PETER R [US], et al
- [A] US 2002160600 A1 20021031 - ECKERT ANDREW ROBERT [US], et al
- [A] US 2003038344 A1 20030227 - PALMER WILLIAM DEVEREUX [US], et al
- See references of WO 2006063081A2

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